

## CONFIGURABLE PROCESSOR SYSTEM

ABSTRACT OF THE INVENTION

A programmable integrated circuit can be designed to emulate, on demand, one of several commonly used microprocessors. It contains a configurable instruction processing unit and a superset datapath unit. The instruction processing unit further contains a configurable microcode unit and a non-configurable sequencing unit. The programmable integrated circuit can be programmed so that a microcode compatible with a target microprocessor is installed in the configurable microcode unit. The superset datapath unit is a superset of the datapath elements of all the target microprocessors.